

GRADE	DESCRIPTION / PROPERTIES	APPLICATION EXAMPLES	GRADE COMPARISON
302	Austenitic Stainless Steel Excellent corrosion resistance and high strength and hardness.	Food and beverage, sanitary, cryogenic and pressure-containing application	Higher carbon version of 304 grade – Higher strength than 304 grade
303	Austenitic Stainless Steel with best machinability properties. Addition of Sulfur or Selenium adds machinability property but reduces corrosion resistance compared to 304.	Bushings, Nuts & Bolts, Aircraft fittings and Gears ----- FFI's SST Lift Slide Hardware	Lower corrosion resistance than 304 grade. Best machinability of all Austenitic grades.
304 *304L *304H	Austenitic Stainless Steel Non-magnetic in annealed condition Slightly magnetic when cold worked Excellent corrosion resistance but susceptible to pitting corrosion in warm chloride environments Excellent toughness Accounts for 50% of all stainless steel produced.	Architecture, food processing, commercial/domestic kitchens ----- FFI's SST Lift Slide Hardware FFI's Tiger Sliding Hardware FFI Edge Pull	Less costly than 316 grade
316 *316L **316H	Same mechanical and physical properties as 304 Grade but has greater pitting corrosion resistance especially in warm chloride environments. Virtually non-magnetic. Often described as "Marine Grade"	Architectural components for marine applications, food processing, hot water systems ----- FFI's Tiger Sliding Hardware	Greater Corrosion resistance than 302 and 304 grades
439	A Ferritic stainless steel that is Titanium stabilized, 18% Chrome alloy with low carbon content (<0.07%). Corrosion resistance to a variety of oxidizing environments from fresh water for boiling acids. Pitting corrosion resistance. Also known as XM-8.	Nuclear, Automotive, Power Generation, Chemical processing, and Consumer Appliances. ----- FFI's SST Lift Slide Hardware	Lesser corrosion resistance degree than Austenitic alloys (302, 304, 316) but greater than all Martensitic and Ferritic alloys (409, 430, 440)
440	High carbon martensitic stainless steel Moderate corrosion resistance Superior Strength and Hardness	Ball bearings, gage blocks, dies, knives and cutlery ----- FFI's SST Ball Bearings	Higher strength and hardness in relation to austenitic steels (302, 304, 316)

* 'L' denotes Low Carbon Content: less carbon content to increase corrosion resistance.

** 'H' denotes High Carbon Content: more carbon content to increase strength.

Disclaimer: All technical information contained herein has been compiled from external technical sources and as such, its accuracy is limited to the accuracy of those sources.

Sources: MatWeb www.matweb.com; A to Z of Materials Online www.azom.com